REMARKS

Claims 1, 3, 5 – 11, 13 and 14 are pending. Claims 1, 3, 5, 6, 8, 9 – 11, 13 and 14 have been amended. Claims 2, 4 and 12 have been cancelled. No new matter has been added. Reexamination and reconsideration of this application are respectfully requested.

In the March 8, 2007 Office Action, the Examiner objected to claims 6, 9 and 10 because the phrase "other process" should be "an other process." The applicant has amended claims 6, 9 and 10 to address the Examiner's rejection and respectfully requests that the objection to claims 6, 9 and 10 be withdrawn.

The Examiner also rejected claims 1 – 14 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Specifically, the Examiner noted that the limitation of deciding combining points "without overlapping with others within the overlapping sections" is unclear in its intent. The applicant has amended each of the claims including the above-identified limitation in order to clarify the invention and respectfully requests that the rejection of claims 1 – 14 under 35 U.S.C. § 112, second paragraph be withdrawn.

The Examiner rejected claims 5, 10 and 14 under 35 U.S.C. § 101 because the claimed subject matter is directed to non-statutory subject matter. The applicant has amended claims 5, 10 and 14 to address the Examiner's concern and respectfully submit that the rejection of claims 5, 10 and 14 under 35 U.S.C. § 101 be withdrawn.

The Examiner rejected claims 1 – 5 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,370,502 to Wu et al. ("the Wu reference"). The

12

Examiner rejected claims 11 and 13 – 14 under 35 U.S.C. § 102(b) as being anticipated

by U.S. Patent No. 5,970,443 to Fujii ("the Fujii reference"). The Examiner rejected

claim 12 under 35 U.S.C. § 103(a) as being unpatentable over the Wu reference in view

that it would have be obvious to one of skill in the art at the time of the invention to

cover MP3 data if the Wu reference disclosed MPEG AAC data. The Examiner

rejected claims 6 – 10 under 35 U.S.C. § 103(a) as being unpatentable over U.S.

Published Patent Application 2002/0165709 in view of the Wu reference. These

rejections are respectfully traversed in so far as they are applicable to the presently

pending claims.

Claim 1, as amended, recites:

An audio data processing apparatus, comprising:
a dividing device that partitions PCM audio data into a plurality of frames, divides the PCM audio data into a plurality of divided data and structures each of the divided data to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and a following divided data;
an encoder that encodes each of the divided data one by one at a variable bit rate and writes the encoded audio data continuously without a space between the frames;
an analyzer that searches frames in the overlapping sections of a present divided data and the following divided data encoded by the encoder, in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped; and
a combining device that combines the divided data at the searched frames.

The Examiner states that the Wu reference discloses a dividing device into a

plurality of divided data, an encoder that encodes the divided data, and a analyzer that

decides combining points where each encoded divided data can be recombined without

overlapping with others in the overlapping sections and analyzes boundaries to

determine a spot within a frame where data can be removed and combined with

subsequent frames. *(Office Action, page 4)*. The Wu reference discloses forming an

overlapping time-domain block by prepending a small fraction of a previous time-

domain block to a current time-domain block; performing a reversible transform on each overlapping time-domain block; quantizing each reversibly transformed block and generating quantization indices indicative of such quantization; encoding the quantization indices for each quantized block as an encoded block; and outputting each encoded block as a bit stream. The Wu reference further discloses decoding the encoded block into quantization indices, generating a quantized transform-domain block from the indices, inversely transforming each quantized transform-domain block into an overlapping time domain block, excluding data from regions near the boundary of each overlapping time domain block, and reconstructing an initial output data block from the remaining data of the overlapping time domain block. *(Wu, col. 3, lines 24 – 55).*

This is not the same as an audio data processing apparatus including **a dividing device that partitions PCM audio data into a plurality of frames, divides the PCM audio data into a plurality of divided data and structures each of the divided data to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and a following divided data**. The Wu data does disclose prepending a small fraction of a previous time-domain block to a current time-domain block but there is no disclosure of **overlapping with the plurality of frames in both previous divided data and following divided data**, as is recited in claim 1. The Wu reference also does not disclose that any divided data is structured to have main data sections and overlapping sections because it the Wu reference is disclosing only prepending (or adding data to a current time-domain block). Accordingly, applicant respectfully submits that claim 1, as amended, distinguishes over the Wu reference.

Further, the Wu reference does not disclose an audio data processing apparatus including **an analyzer that searches frames in the overlapping sections of a present divided data and the following divided data encoded by the encoder, in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped**. Instead, the Wu reference discloses the excluding of data from regions near the boundary of each overlapping time-domain block (and reconstructing an initial output data block from the remaining data of such overlapping time-domain block). There is no disclosure in the Wu reference of **utilizing beginning points in present divided data and following divided data in order to determine frames that are closest in positions**, as is recited in claim 1. Accordingly, applicant respectfully .submits that claim 1, as amended further distinguishes over the Wu reference.

Independent claims 3 and 5, both as amended, recite limitations similar to independent claim 1, as amended. Accordingly, applicant respectfully submits that claims 3 and 5 distinguish over the Wu reference for reasons similar to those discussed above in regard to claim 1.

Claim 6, as amended, recites:

> An audio data processing apparatus, comprising:
> **a dividing device that partitions PCM audio data into a plurality of frames, divides the PCM audio data into a plurality of divided data and structures each of the divided data to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and a following divided data;**
> a plurality of processors that encode each of the divided data one by one at a variable bit rate, write the encoded audio data continuously without a space beyond the frames and execute an other process;
> **an analyzer searches frames in the overlapping sections of a present divided data and the following divided data encoded by the plurality of processors, in which a beginning point of the encoded audio data written into the frame in the**

present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped;

a combining device that combines the divided data at the searched frames when all of the divided data have been encoded; and

a management device that watches operation statuses of the plurality of processors and when a free processor executing no process is found, controls the free processor to execute the encoding process of the divided data.

The Examiner states that the Sadri reference discloses a system for efficient implementation of vocoders comprising a plurality of parallel processors that encode audio data where the plurality of processors encode the divided data and a detector (cluster switch) is used to communicate between the main sequential processor and the parallel processing element. *(Office Action, page 7)*. The Examiner also states that the Sadri reference does not disclose the dividing device limitation, the analyzer limitation or the combining device limitation. The applicant agrees with the Examiner and respectfully submits that claim 6 distinguishes over the Sadri reference.

Claim 6 recites limitations similar to claim 1, as amended. Accordingly, applicant respectfully submits that claim 6 distinguishes over the Wu reference, alone or in combination with the Sadri reference, for reasons similar to those discussed above in regard to independent claim 1. Claims 7 and 8 depend, indirectly or directly, on claim 6. Accordingly, applicant respectfully submits that claims 7 and 8 distinguish over the Sadri / Wu combination for the same reasons as those discussed above in regard to claim 1.

Independent claims 9 and 10, both as amended, recite similar limitations to claims 6 and 1. Accordingly, applicants respectfully submit that claims 9 and 10 distinguish over the Sadri / Wu combination for reasons similar to those discussed above in regard to claim 1, as amended.

Independent claim 11 incorporates limitations from previously pending claim 12.

Accordingly, when analyzing claims 11, 13 and 14, applicants will address both the Fujii reference and the Wu reference.

Independent claim 11, as amended, recites:

An audio data distributing apparatus, comprising:
a dividing device that partitions PCM audio data into a plurality of frames and divides audio data into a plurality of divided data, each including the plurality of frames;
an encoding device that encodes each of the divided data at a distinct bit rate by a common coding type;
a transmitter that transmits the encoded divided data to a communication network;
a detecting device that detects a condition of the communication network; and
an instructor that instructs a bit rate suited for the detected conditions of the communication network to the encoder at a time of encoding each of the divided data, wherein the encoder encodes PCM audio data to MP3 data and writes the encoded audio data continuously without a space beyond the frames, **the dividing device partitions PCM audio data into a plurality of frames and structures each of the divided data to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and a following divided data,** and
the audio data distributing apparatus further includes:
an analyzer that searches frames in the overlapping sections of a present divided data and the following divided data encoded by the encoder, in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped; and
a combining device that combines the divided data at the searched frames to create combined data and supplies the combined data to the transmitter.

The Examiner states that the Fujii reference discloses a dividing device (frame buffer 12) that divides audio data into a plurality of divided data, an encoding device (encoder unit 1) that encodes the divided data, a transmitter (transmitter unit 2) that transmits the encoded divided data, and a detecting device (transmitter unit 2) that detects a condition of the communication network. *(Office Action, page 5).* The Fujii reference specifically discloses an audio encoding-decoding system that is between a transmitting station and a receiving station which are connected together through communication lines. The transmitting station corresponds to an encoder which encodes audio signals input thereto to produce compressive coded bit streams. The

encoder utilizes a code book or conjugate structure code books to perform vector quantization on residual signals corresponding to residuals of an analysis of linear predictive coding, which is performed on the audio signals. Indexes are produced in response to the vector quantization. The encoder produces the compressive coded bit stream based on the indexes and a result of the analysis of the linear predictive coding. A bit rate mode is determined for the compressive coded bit stream in response to conditions of the communication lines. *(Fujii, Abstract).*

The applicant understands the Examiner's use of the Fujii reference to disclose encoding, transmission, and determining bit rates based on the condition of the communication lines. However, the Fujii reference does not disclose either 1) an audio data processing apparatus including **a dividing device that partitions PCM audio data into a plurality of frames, divides the PCM audio data into a plurality of divided data and structures each of the divided data to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and a following divided data**, or an audio data processing apparatus including **an analyzer that searches frames in the overlapping sections of a present divided data and the following divided data encoded by the encoder, in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped.** Accordingly, applicant respectfully submits that claim 11 distinguishes over the Fujii reference.

Claim 11, as amended, recites limitations similar to claim 1, as amended.

Accordingly, applicant respectfully submits that claim 11 distinguishes over the Wu reference, alone or in combination with the Fujii reference, for reasons similar to those discussed above in regard to claim 1. Further, independent claims 13 and 14 recite similar limitations to claim 11 and thus claim 1. Accordingly, applicant respectfully submits that claims 13 and 14, both as amended, distinguish over the Fujii / Wu references, alone or in combination, for reasons similar to those discussed above in regard to claim 11 and claim 1.

Applicant respectfully submits that all claims are in condition for allowance. If the Examiner has any questions, the Examiner is requested to call either of the undersigned attorney at the Los Angeles telephone number (213) 488-7400 should the Examiner believe that such a telephone conference would advance prosecution of the application.

Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP

Date: September 6, 2007   By: _____
                                   Mark R. Kendrick
                                   Registration No. 48,468
                                   Attorney for Applicants

Date: September 6, 2007   By: _____
                                   Roger R. Wise
                                   Registration No. 31,204
                                   Attorney for Applicants

725 South Figueroa Street, Suite 2800
Los Angeles, CA 90017-5406
Telephone: (213) 488-7100
Facsimile: (213) 629-1033